

A whole of Government Approach

The Local, U.S. Federal Perspective



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Six elements of the Ecosystem Approach

1. Identify the ecosystem
2. Describe the ecosystem
3. Set ecological objectives
4. Assess the ecosystem
5. Value the ecosystem
6. Manage human activities



Integrated Arctic Management (IAM): The U.S. *approach* to an Arctic Ecosystem Approach

(i.e. Ecosystem-based Management)

“a science-based, whole-of-government approach to stewardship and planning in the U.S. Arctic that integrates and balances environmental, economic, and cultural needs and objectives.”

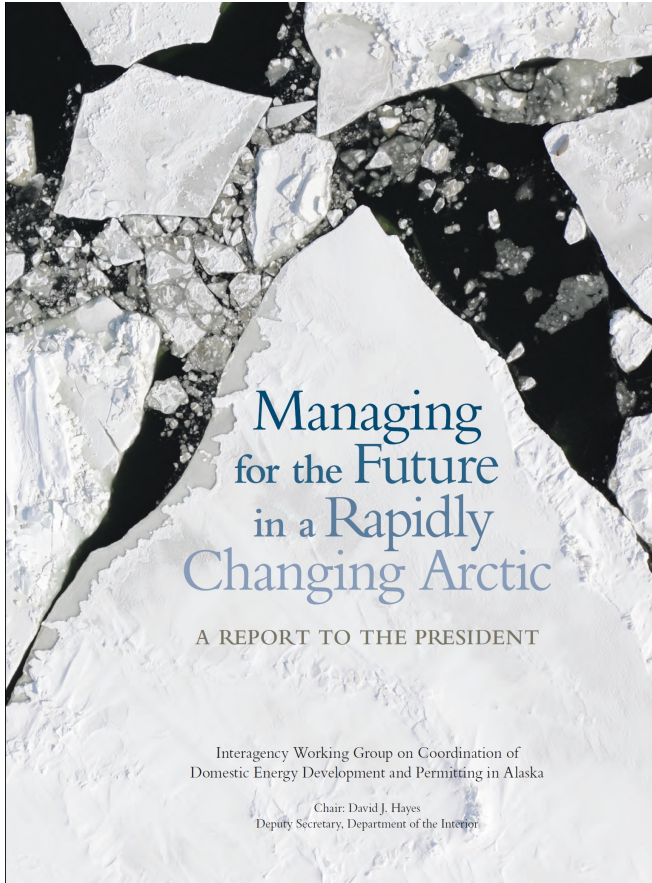


Polar Bear
Source: BOEM Photo Gallery



Walrus
Source: BOEM Photo Gallery





Interagency Working Group on Coordination of Domestic Energy Development and Permitting and its Arctic regional component

➤ *with an Alaska Regional-IWG component*

Objective: to improve stewardship, management, planning, and permitting actions in the U.S. Arctic by building on the working relationships

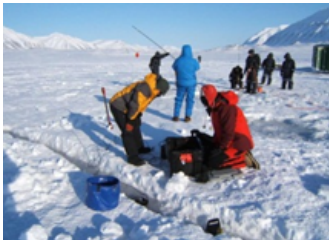
What's at stake? or,..... Why?

- Failure to Adapt Management to a Changing Arctic is Unacceptable
- Failure to Recognize the Needs of one or more Stakeholder Groups is Unacceptable



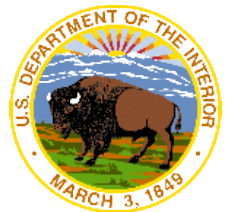
How do we get there?

- Innovation, Coordination, Commitment, Knowledge and Experience



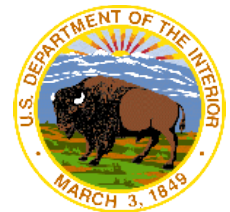
MOU Federal and State of Alaska agencies

- Adaptive Management - Guided by Research and Monitoring;
- Embracing Sound Scientific Information
- Embracing, Acknowledging, & Respecting Indigenous Knowledge;
- Encouraging Coordinated Planning & Permitting;
- Engaging International Coordination;
- Collaboration: Acknowledging the relationship & responsibility among Federal, State, & Tribal Governments to address priorities that cannot be (*or should not be*) accomplished by an individual party.



How do we do this?

- A planning process with multiple feedback loops allowing for improvement and adaptation.
- Using the Best Science and Indigenous Knowledge
- Through coordination in the Alaska Regional-IWG
- By working with the State of Alaska and Tribal governments
- By working with our International Partners
- Mitigating potential adverse impact of marine research on subsistence hunting (Arctic Waterways Safety Committee)

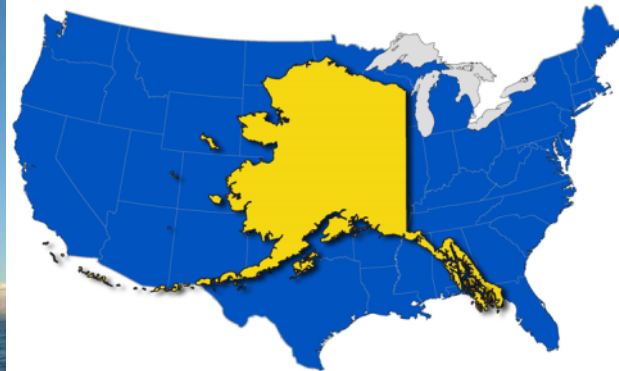


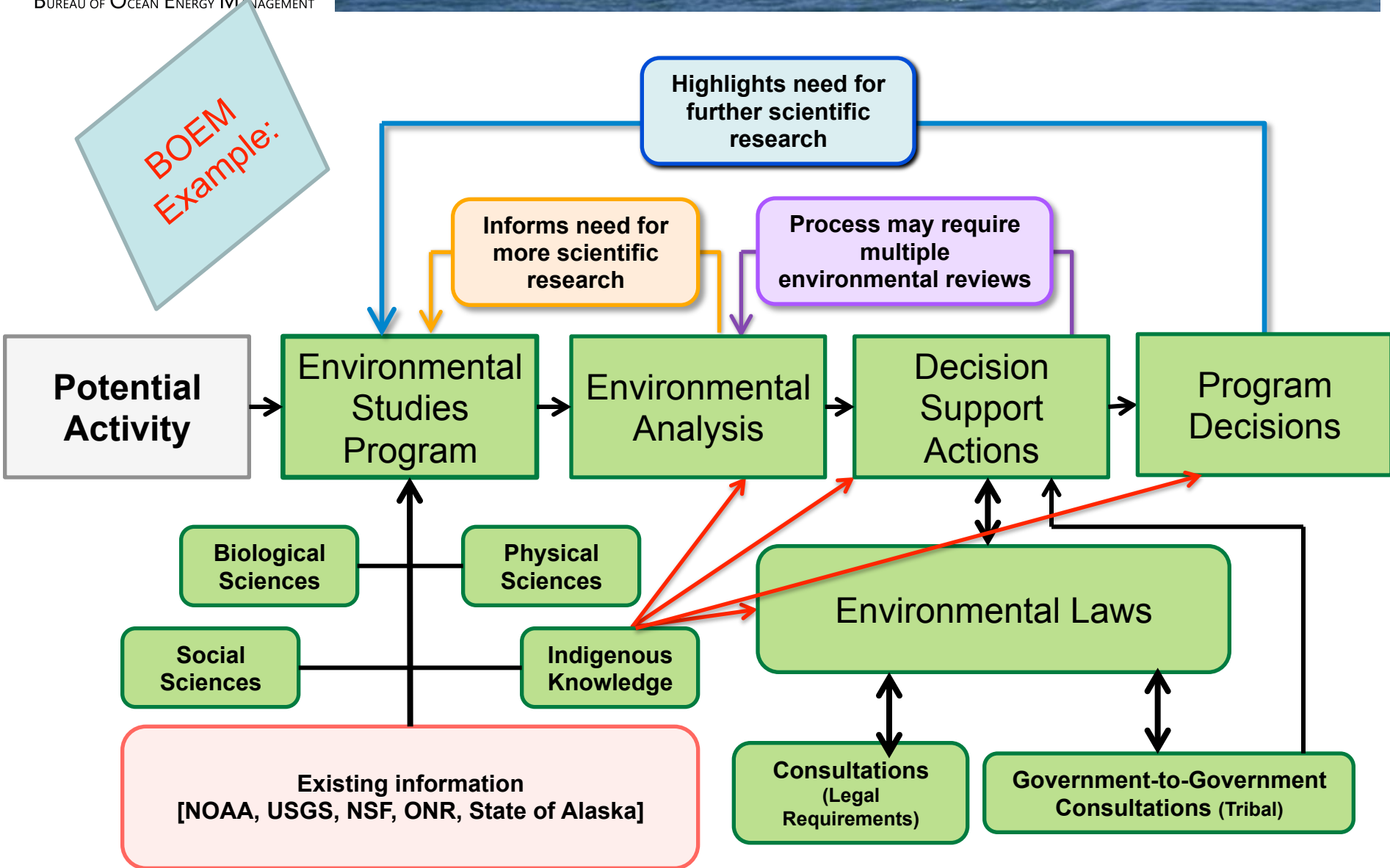
The Outer Continental Shelf Lands Act (OCSLA):

... the Outer Continental Shelf is a vital national resource reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs ...

BOEM's Mission:

... to manage development of the nation's offshore energy and mineral resources in an environmentally and economically responsible way.





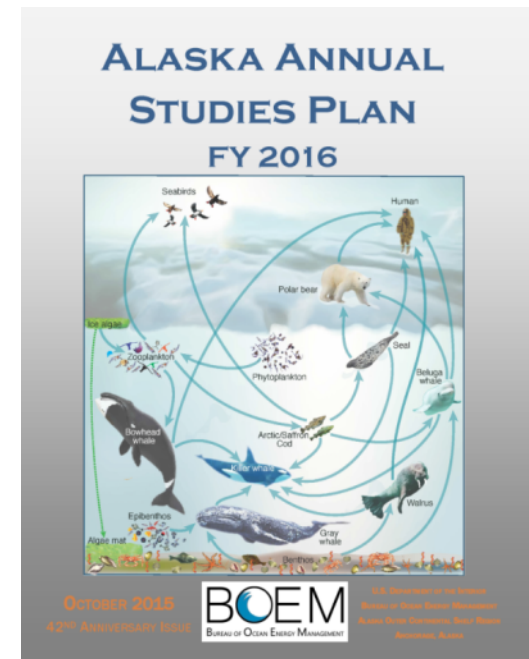
BOEM's Environmental Studies Program was Initiated in Alaska in 1974

➤ 2007 – Present (Arctic Focus):

- Whales; Walruses;
- Polar Bears; Seals;
- Ecosystem Monitoring;
- Fate and Effects Modeling;
- Social Systems; Traditional Knowledge;
- Sea Ice Dynamics

➤ Partners Include:

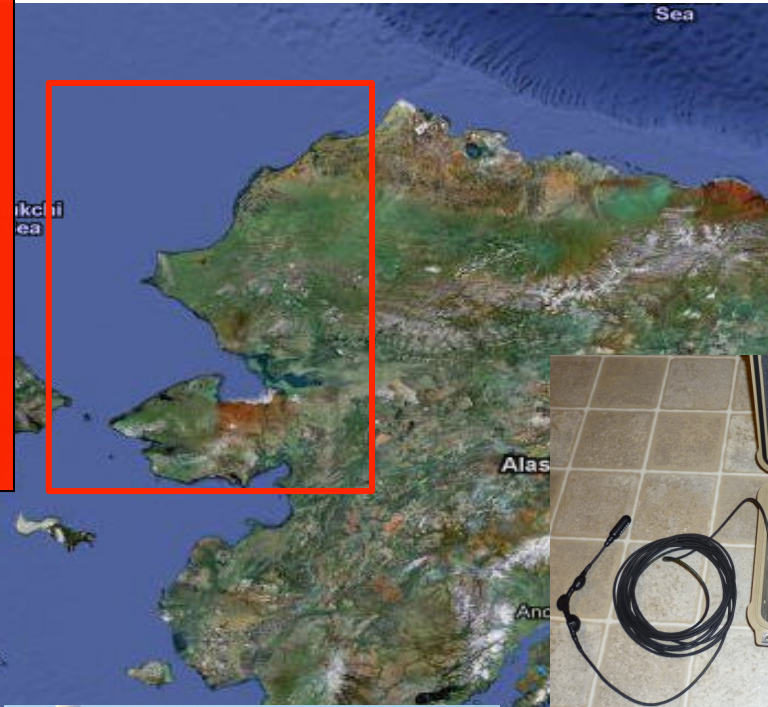
- NOAA / NOPP / USGS / NPRB / UAF / NPS / USFWS / BSEE
/ Shell / North Slope Borough.



CHAOZ (2010-2016): Chukchi Acoustics, Oceanography, and Zooplankton study

Long term recorders
Sonobuoys
Autodetection buoy

Oceanography, zooplankton, acoustics (noise modeling), visual, satellite tagging, and climate modeling



Hydrophones for Hunters (2010+) (NMFS-ADFG)

Simple, compact, dipping hydrophone kits

Outreach + getting more info out of long-term recorders



To make better decisions,
BOEM actively seeks
Traditional Knowledge to
complement its use of
Western science.



Photo by Emily Brower



BOEM OCEAN SCIENCE

THE SCIENCE & TECHNOLOGY JOURNAL OF THE BUREAU OF OCEAN ENERGY MANAGEMENT

VOLUME 9 ISSUE 2 • APRIL/MAY/JUNE 2012

Special Issue on **Traditional Knowledge**

Science in Transformation

**Traditional Knowledge
and Sociocultural Studies**

**Integrating Traditional
Knowledge into Biological
Resource Studies**

**Cultural Landscapes:
Traditional Knowledge
Across the Pacific Rim**

**Fenton Rexford (Interview),
Tribal Administrator of the
Native Village of Kaktovik**

**Where Do We
Go From Here?**



- **Nearly one-half of all U.S. Tribes call Alaska Home**
- **Native Corporations provide improved lives, conditions, in search of sustainable future**
- **Tribal Leaders and Members are often leading local and regional governments**
- **Traditions, cultures, and languages are encouraged, celebrated**
- **Traditional Knowledge is highly-valued and shared as a gift of trust**





Community Based Monitoring (CBM)



Local Environmental Observer Network

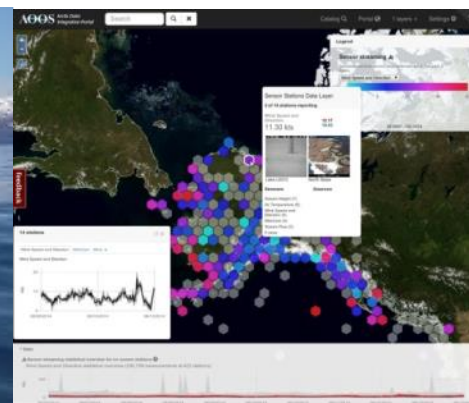
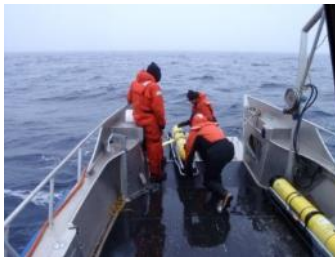
Community Based Monitoring

- Working with the, EPA, UAF-Coastal Marine Institute and North Slope coastal communities in collecting data from tidal gauges.
- Working to expand CBM in North Slope communities by joining the wider LEO Network.
- LEO provides communities with tools to improve the monitoring of extreme weather, damage to infrastructure, invasive species, and to perform surveillance for outbreaks of illness in wildlife.



Alaska Ocean Observing System (AOOS)

- Congressionally Directed – housed under NOAA
- Governed through a Memorandum of Agreement
- Seeks non-government funds
- Maintains a public website, data archiving, and a data portal
- **Members:** Federal, State, and Local Government, Fishery Management Council, Industry (Shell), University, US Coast Guard, Oil Spill Research Institute, and others
- **Stakeholders:** Communities, oil & gas industry, fishing, shipping, resource managers, general public, etc.



Public Access to Research Results: PARR

- Presidential mandate to make Federal data available to the public
- Accessible data requires ability to access, ability to discover, and ability to archive (data portals)
- Data and publications available within a year of acquisition
- Implementation being phased in over next two years



Working with the Arctic Council since its formation in 1996!

- ***Alaska makes the U.S. an Arctic Nation (In addition to EAM)***
 - *Arctic Offshore Oil and Gas Guidelines*
 - *Oil and Gas Activities in the Arctic - - Effects and Potential Effects*
 - *Recommended Practices for Pollution Prevention*
 - *Identification of Arctic Marine Areas of Heightened Ecological and Cultural Significance*
 - *Systems Safety Management and Safety Culture; Avoiding Major Disasters in the Arctic Offshore Oil and Gas Operations*
 - *Circumpolar Local Environmental Observer Networks*
 - *Pan Arctic MPAs; Central Arctic Ocean Fish survey*





Thank You....*Questions?*

Do not leave this door propped open due to the fact that the Bears have been attempting to get in the camp!!! Watch yourselves, to the Bears you are Meatsticks with clothes on!!!